

Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 26 with the following amended paragraph:

A typical composite hook and loop fastener that has been commercially successful is produced by ~~overlooking~~ overlapping and attaching pre-formed hook material and pre-formed loop material and overlapping and attaching the two materials together along their edge margins or by totally overlapping one over ~~of~~ the other. The attaching has been done by ultrasonic welding, thermal fusing and adhesive bonding, steps which add to the cost of the manufacturing process. Composite hook and loop materials formed by in situ lamination uniformly across an extensive surface of a pre-formed loop web during forming the hook component have also had advantageous uses but have had limitations in other circumstances. Other proposals have involved impregnating a web so that resin of the formed hooks lies on both the hook side and the opposite side of a second material, or have required special materials that are costly or difficult to manufacture, such as separately formed woven and knit loop materials, or have presented other disadvantages, such as difficulty in manufacture and in achieving the optimal balance of desired properties such as hook and loop engageability, stretchiness, flexibility, feel, uniformity and cost.

Please replace the paragraph beginning at page 4, line 18 with the following amended paragraph:

According to another aspect of the invention, a method of manufacturing a stretchable or flexible fastener includes the following steps: molding a continuous or discontinuous sheet of a hook component having a base of synthetic resin in the form of rows, bands or islands of stems of loop-engageable hooks ~~are~~, while simultaneously providing a pre-formed carrier sheet of elastic or flexible construction or other work pieces and integrally laminating the base of the hook component at least partially to a surface of the sheet, or work pieces including forming a set of closely spaced parallel parting lines or parting regions, such as resin-free regions between the rows, bands or islands of loop-engageable hooks.

Please replace the paragraph beginning at page 19, line 6 with the following amended paragraph:

As illustrated in Fig. 9E, the apparatus of Fig. 9B can be used to advantage in forming a one-component hook sheet 79 which has thinned flexure regions 78 between bands 125 of hooks. In this case, resin 40 (e.g. in this case, polypropylene for forming "living hinges") from extruder 42 fills hook mold cavities 75 and the entire gap between the mold roll 46 and the pressure roll 48, no pre-formed sheet being introduced to the mold gap. The resulting product can have enhanced flexibility in the cross machine direction by the cooperation of the many living hinges alternating with the bands of hooks. Similar flexure regions 78' can also be formed extending cross machine by suitable cross machine protrusions from the mold roll, see Fig. 9H, resulting in islands of molded hooks connected to each other by thin flexures of the hook-forming resin, the side size of the island depending on the spacing and width of the oversize forming rings and axially extending forming protruding ridges or other features employed to define the islands.

Please replace the paragraph beginning at page 28, line 3 with the following amended paragraph:

In one example, a web includes (FIG. 18), starting from the left, a 3 inch wide strip of unsupported nonwoven loop, an inch and a half wide strip of hook material, in situ bonded at its margin to surface structure of the nonwoven, a 6 inch wide strip of unsupported nonwoven loop, an inch and a half wide strip of hook material, in situ bonded at the margins to the surface structure of the nonwoven material and a 3 inch wide strip of unsupported nonwoven loop. The alternating bands of nonwoven and hook material thus overlap partially, being in situ bonded at joints 28. The overlap areas are, for instance, 3/8 inch wide. The construction of the nonwoven strip can advantageously be uniformly the same in the in situ bonding regions behind the hook material and in the resin-free, unsupported regions. After formation, the web may pass through a slitter where it is longitudinally slit at the midpoints A and C of the hook segments, and at the midpoint B of the 6 inch loop segment. This results in four continuous length composite flexible webs, each comprising a narrow band of hook material joined to a relatively wide band of nonwoven loop material (FIG. 19).

Please replace the paragraph beginning at page 29, line 20 with the following amended paragraph:

Other features and advantages of this invention may include one ~~one or~~ or more of the following. The web in FIG. 18 may be first coated in appropriate locations with the pressure sensitive adhesive and then passed through the slitter where it is longitudinally slit to form the hook and loop segments. The very low thickness of both the nonwoven loop material and the hook material, along with its low cost and good closure performance, make the wrap tie a particularly useful component of many products. The wrap ties may be employed, for instance to close a plastic bag as described above (FIG. 12A), to secure pipes or other building materials, to bundle cables and secure bundled cables, to serve as diaper tabs, and for other straps and wrappings about the body, to secure medical devices, etc.

Please replace the paragraph beginning at page 33, line 3 with the following amended paragraph:

Referring now to FIG. 29-29B, a process and apparatus similar to those described above with reference to FIGS. 9-10 is illustrated for forming the product of FIG. 28. The loop material 410 is fed into a nip 420. If it is elastic in one direction, it has its elastic dimension perpendicular to machine-direction tension (indicated by arrow T). Nip 420 is formed by a mold roll 422 and pressure roll 424 similar to those previously described. Simultaneously with feeding in the loop material 410, thermoplastic resin 426 is fed into nip 420 by extruder 430 through the spaced narrow width, slot die orifices of deckled die 428 (FIG. 29A) so that the resin is provided as narrow, separated bands conforming to a common plane. As these bands of molten resin pass into nip 420 they are, on one side, in situ laminated fully across their back to surface structure of loop material 410 while on the other side, the resin is molded into the form of loop-engaging fastener elements (or molded stems which are later treated to form loop-engageable features, as previously described). This produces spaced apart, parallel hook bands 452 (FIGS. 28-28E), or bands of stems that are later treated to form hooks on one side of the carrier sheet, while the opposite side of the loop material can remain pristine, free of hook resin, and, if defining hook-engageable loops on that side, the loops remain unimpaired and effective. Spreader rolls 411,

413 having parallel ribs and grooves slightly angled away from their center (FIG. 29B) guide the material and maintain it wrinkle free, widthwise during processing.

Please replace the paragraph beginning at page 40, line 18 with the following amended paragraph:

There are other ways to form e.g. separated parallel linear bands or discrete, disconnected islands of hooks on the above-described carrier webs within certain broad aspects of the present invention. For example, at dispersed, selected locations across the width of a traveling preformed carrier web, e.g. a material defining hook-engageable loops, discrete separate molten resin deposits of the desired form, e.g. of x, y-isolated islands, or in spaced apart parallel bands, may be deposited upon the surface structure of the carrier web. Following this, upper portions of the resin deposits, while still molten, or after being reheated by an intense localized flame line, are molded into fastener stems by mold cavities that are pressed against the resin deposits. For instance, at selected widthwise separated locations along a deposit line, as the web transits the line, discrete island-form deposits are made at selected locations. Immediately, with the resin still molten, or after heat activation, the web is introduced into a molding nip, formed by a mold roll and a pressure roll. The mold roll, for instance, defines tiny fixed hook fastener cavities as described above, or smaller fastener features, e.g. of less than 0.005 inch height, or similarly shallow cavities for tiny stem preforms, that are aligned to press down upon the resin deposits under conditions in which nip pressure causes the molten resin to enter the cavities at the base of the stem portion of the cavities, and fill the molds, and be molded into a localized dense array of stem preforms or into a localized dense array of fully formed loop-engageable molded hooks. With appropriated appropriate amounts of resin in the deposits, a base layer common to all of the molded stems of a discrete island deposit can be formed by the mold roll surface, as may be desired. The mold pressure, simultaneously with the molding, causes the resin to bond firmly to the surface structure of the preformed carrier, effecting in situ lamination. Where the preformed web has a fibrous or porous makeup, as with hook-engageable loop material, the nip pressure causes the resin to commingle with the top fibers or other structure that define the surface structure of the web, without penetrating the full depth of the web. Thus the opposite side of the carrier web can remain pristine, free of the molding resin, and, if the opposite surface of the

preformed web defines a uniform surface of hook-engageable loops across the full width of the article, the effectiveness of those loops can be preserved while the molded stems or fully molded hooks are molded and in situ bonding occurs.

Please replace the paragraph beginning at page 41, line 17 with the following amended paragraph:

With such arrangements it will be understood that the regions of carrier material between the separated islands remain free of the resin from which the hooks or stem preforms are molded. Thus, in the case of elastically stretchy carrier sheet preforms, whether of plain preformed elastomer sheet, or of stretchy hook-engageable loop material, the resin-free regions enable the web to ~~provide be~~ elastically stretchy, while ~~flexible~~ flexibility of the article in both orthogonal (X,Y) directions in the plane of the web is achieved. Where the preformed carrier web is a non-stretchy, but flexible material, such as a bi-directionally stabilized knit loop product having hook-engageable loops on both sides, the regions between the separated islands enable the finished article to be simply flexible in both X and Y directions in the plane of the fabric.

Please replace the paragraph beginning at page 34, line 29 with the following amended paragraph:

For further discussion of use of the material in medical products and for novel product configurations, the reader is referred to co-pending U.S. Patent application number _____ 60/242,823, to Joy, et al., entitled "Wound Covering," filed simultaneously herewith, the entire contents of which are hereby incorporated by reference.